



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Docket No: Q67795

Kiyoo MORITA

Appln. No.: 10/020,956

Group Art Unit: 3654

Confirmation No.: 1153

Examiner: Sang K. Kim

Filed: December 19, 2001

For: TAPE REEL

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

I, Kiyoo MORITA, hereby declare and state that:

In 1985, I obtained a Master's Degree in Mechanical Engineering from the Waseda University.

In 1986, I became employed by Fuji Photo Film Co.

From 1986 to now I have been engaged in research and development relating to working parts for a recording media. Since 1997, I have extensive experience in the design, development and analysis of magnetic tape cassettes for use in video, audio, computer and similar devices. I have read the U.S. Patent Application No. 10/020,956 filed in the U.S. Patent and Trademark Office on December 19, 2001 and entitled TAPE REEL, and claiming priority from Japanese Patent Application 2000-385602 filed December 19, 2000, including the Figures 1-5 which were part of the originally filed application. It is my opinion that one of ordinary skill in the field of

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tape reels for magnetic tape cassettes would have been able to make and use the invention filed in claims 1-3 based on the information provided in the original application.

Based on my extensive experience in this field, I am familiar with the level of skill in the art in the field as it existed on December 19, 2000.

I. More specifically, the Examiner maintains that he

cannot see the upper and lower flanges moving towards each other when the magnetic tape is being wrapped around the hub. For instance, in Figure 2, the outer wall 11a is connected to the lower flange 13, but the upper flange 12 is not connected to the outer wall 11a, instead it is fastened by 11e. Therefore, as the magnetic tape is being wound around the hub, only the lower flange 13 would move toward upper flange 12 because of the force on the hub is buckling the lower flange, thus decreasing the distance between said upper flange and said lower flange. The upper flange 12 cannot be moved even though it is secured to the hub by fasteners.

(See the paragraph bridging pages 2 and 3 of the final Office Action dated August 12, 2003).

Further, in the Advisory Action dated January 5, 2004, the Examiner alleges that pages 7 and 8 of the subject application explain that the upper flange 12 is bonded to hub 11, "only by means of the weldable bosses 11e, and nowhere in the specification points out that the upper flange 12 is bonded to the outer peripheral wall 11a." (emphasis in the original).

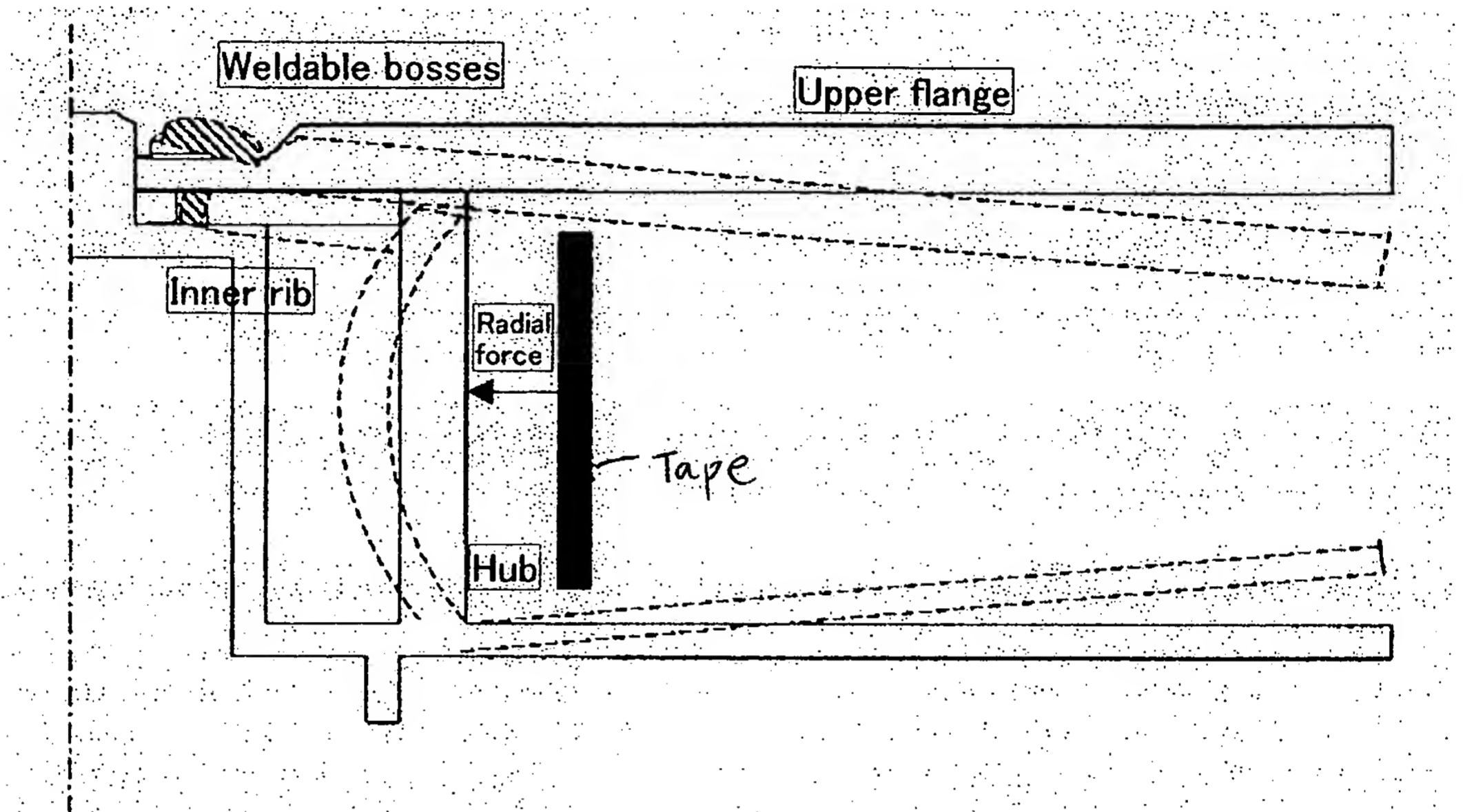
However, for the following reasons, it would have been obvious to one of ordinary skill in the art after reading the subject application, to fully understand how the upper flange is moved downwardly and the lower flange is moved upwardly.

In particular, I explain the principle of the moving of the upper flange and the lower flange.

- 1) The upper flange 12 and the hub wall 11a are not welded, as is shown in the following figure.
- 2) The hub 11 is deformed as shown in the figure by the radial force of the tape. The upper flange is connected with the hub via the weldable bosses 11e. A

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cylindrical portion of the hub is deformed in a radial direction, as shown in broken lines by winding the tape, thereby an inner rib is also deformed. The deformation of the inner rib causes a inclination of the base portion of the weldable bosses and the upper flange is deformed as shown in the figure.



II. In the final Office Action dated August 12, 2003, the Examiner further requested clarification regarding Applicant's data showing a change of the distance of the upper flange and the lower flange.

In the Response under 37 C.F.R. § 1.116 filed on December 11, 2003, three explanatory Figures A, B and C were submitted in order to facilitate the Examiner's understanding of the operation of the present invention and, in particular, how the upper and lower flanges are

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deflected toward each other over an entire circumference thereof. Figure A shows the experimental apparatus used to measure the deflection of the present invention, wherein a measuring head was positioned to contact on the upper surface of the upper flange, and another measuring head was positioned to contact the lower surface of the lower flange. A base level was set under the lower flange.

Moreover, Figure B shows a positional variation in millimeters (mm). Thus, the units involved were in fact millimeters (mm). In this regard, note that the data discussed by Applicant's representative during an interview on November 21, 2003 was likewise directed to a positional variation. There were margins of error involved in the measurements. Accuracy of the measurements is about 5 μm . The surface roughness of 10 μm does not affect the data in any way, since the deformation amount is about 0.08 mm.

Figure C also shows how the cylindrical portion of the hub is deformed so that the upper flange is moved downwardly and the lower flange is moved upwardly.

In view of the foregoing, and given the description of the present application, one of ordinary skill in the art would have understood that after tape is wrapped around the hub, the upper flange is moved downwardly and the lower flange is moved upwardly. Accordingly, it is my opinion that the ordinarily skilled artisan would have been able to make and use the invention defined in claims 1-3 given the information provided in the originally filed application.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that the

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statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: March 8, 2004

Ky v. Chit
Name: